hydroe®

Made In Australia

Disinfectant Solutions Provider
Life Sciences & Healthcare

Therapeutic Goods Administration of Australia TGA CERTIFIED

KILLS COVID-19 HOSPITAL GRADE

FDA



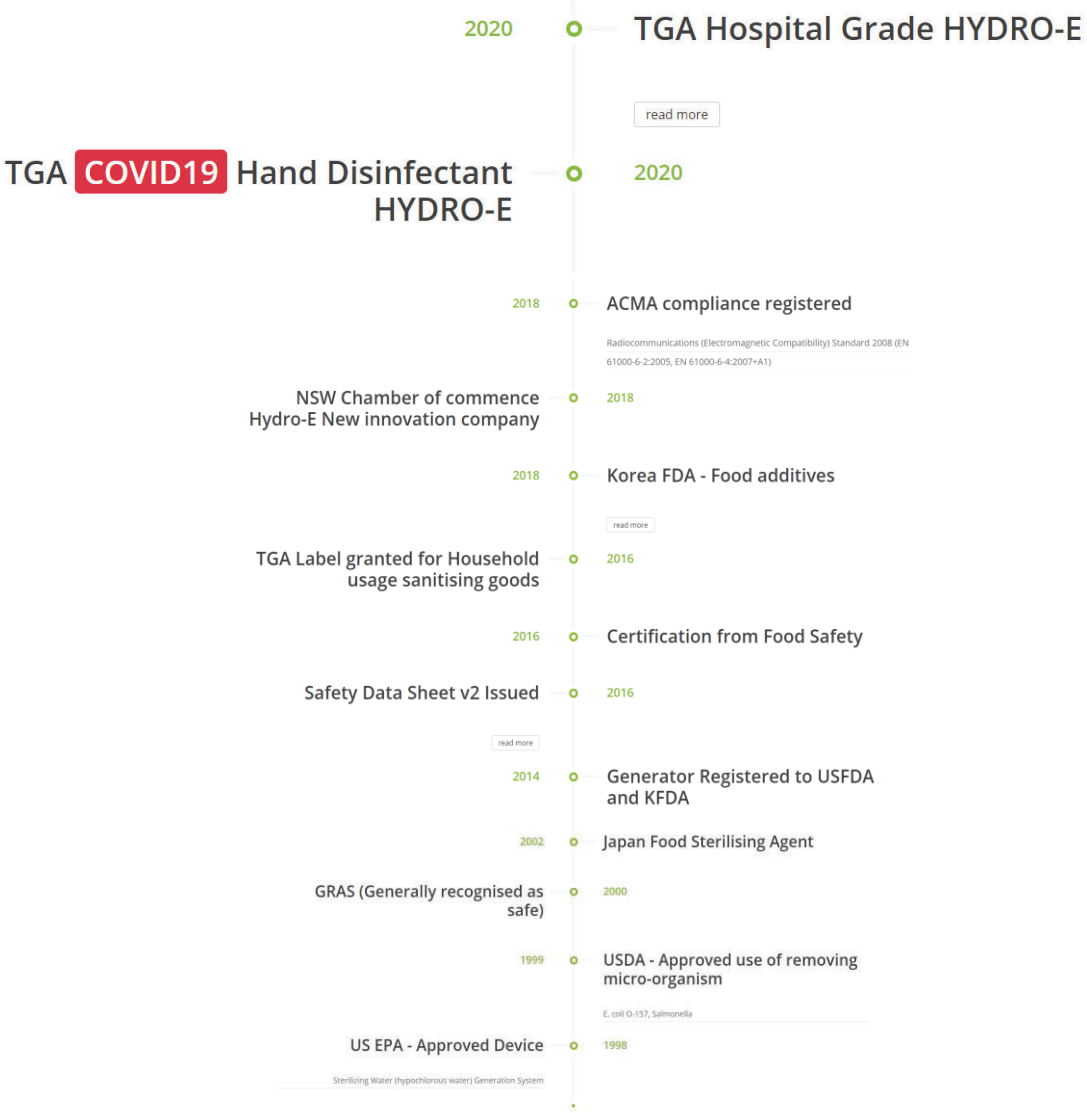





Why Hydro-E HOCl?

- **99.9% Effective antibacterial disinfectant** (surface and airborne)
- **Non-toxic/non-flammable**
- **Residue free, tasteless, odourless, odour eliminating**
- **Baby/Child, pet, allergy, and ECO friendly**
- **Eliminates COVID-19 faster** than alcohol and bleach based sanitisers
- **Eliminates wider range of bacteria, fungus, and infection types** than alcohol and bleach
- **pH neutral/water based** (pH level 7, won't dry out skin or leave residue, smell or taste like alcohol and bleach)
- **Used by Coca-Cola Poland to disinfect/sanitise recycled glass** (replacing the bleach and UV treatment process)
- **Broad spectrum of application** – Used as a surface cleaner, in meat/produce /food manufacturing, medical equipment sanitiser, non-corrosive coolant, and much more…

Approvals & Certifications



Australian Government
Department of Health
Therapeutic Goods Administration

Australian Register of Therapeutic Goods Certificate

Issued to

Signac Group Pty Ltd

for approval to supply

Signac Group Pty Ltd - Hydro-E Hospital Grade Disinfectant - Disinfectant, hospital grade

ARTG Identifier	335971
ARTG Start Date	7/05/2020
Product Category	Other Therapeutic Good Other Therapeutic Good - Listed disinfectant
Intended Purpose	Hydro-E is a hard surface disinfectant which is effective against germs and a broad range of bacteria including staphylococcus aureus (MRSA), VRE, CPE/CRE, Salmonella and Acinetobacter. Not to be used on skin. Not to be used on medical devices or other therapeutic goods.

Manufacturer Details	Address	Certificate number(s)
Signac Group Pty Ltd	Unit 7 116 Kurrajong Avenue Mount Druitt , NSW , 2770 Australia	

ARTG Standard Conditions

The above Other Therapeutic Good Other Therapeutic Good - Listed disinfectant has been entered on the Register subject to the following conditions:

- Conditions applicable to all therapeutic goods as specified in the document "Standard Conditions Applying to Registered or Listed Therapeutic Goods Under Section 28 of the Therapeutic Goods Act 1989" effective 1 July 1995.
- Conditions applicable to the relevant category and class of therapeutic goods as specified in the document "Standard Conditions Applying to Registered or Listed Therapeutic Goods Under Section 28 of the Therapeutic Goods Act 1989" effective 1 July 1995.

Products Covered by This Entry

1. Hydro-E Hospital Grade Disinfectant - Disinfectant, hospital grade

Product Specific Conditions

No specific conditions have been recorded against this entry.

KR BIOTECH

KR Biotech Co., Ltd.
Institute of Infectious Disease Control
(BSL3 No. KCDC-09-3-01)
Neungdong-ro 120, Konkuk university
Bld#12, Rm 406, Kwangjin-gu, Seoul

Test Report

Client	Name	SeouLin Bioscience Co., Ltd.	Tel. No.	82-1670-5911
	Representative	Eul-Moon, Hwang	E-mail	ecoTree@seoulin.co.kr
	Address	4F. #A, KOREA BIO PARK, 700, Daewangpangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea		
Request	Virucidal Activity Test			
Sample	Hydro-E,ecoTree SLB-120 Sterilization Water Generator			
Purpose of Use on the Product	Slightly acidic hypochlorous acid water (pH 5.0~6.5 / 30~40ppm) Sterilization, Disinfectant		Test Period	2020.06.18-07.10
Test Virus	COVID-19 (SARS-CoV-2)		Cell Line	Vero E6
Test No.	KR-2006-016-SLB01-C		Testing method	ASTM E1052-11
Sample State	Liquid: Colorless, transparent		Sample Concentration	Stock solution
Reaction Time	30 sec, 1 min, 5 min		Titration	CPE
Test Temperature	Room Temperature (Approx. 20°C)		Tester	Hansam Cho

Test Result

Product Name	Virus Titer $TCID_{50}$	Treatment time	Virus Reduction Rate (log)	Virus Reduction Rate (%)
ecoTree SLB-120 (ecoTree,Hydro-E)	3.16×10^6	30 sec	≥3.33	99.95%
	3.16×10^6	1 min	≥3.50	99.97%
	3.16×10^6	5 min	≥4.00	99.99%

Result: ecoTree SLB-120 Sterilization Water Generator (ecoTree,Hydro-E) used in the test showed 99.95% effect after of virucidal 30 seconds of sample treatment on COVID-19 (SARS-CoV-2).

July 15, 2020

Test Manager: Young Bong Kim

KR Biotech Co., Ltd.

* This test report is a result limited to the sample and sample name provided by the client and does not guarantee the quality on the overall product.
* This report cannot be used for PR, advertising and litigation purposes, and use of this report other for its original purpose is prohibited.

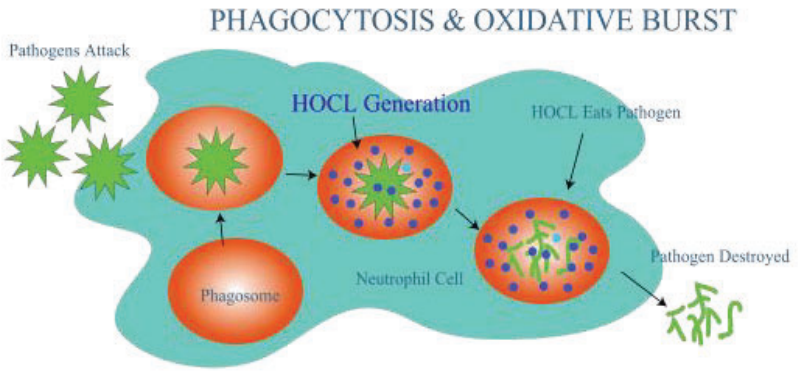
Kills Covid-19 (SARS-CoV-2) in 30 s
econs 99.95%

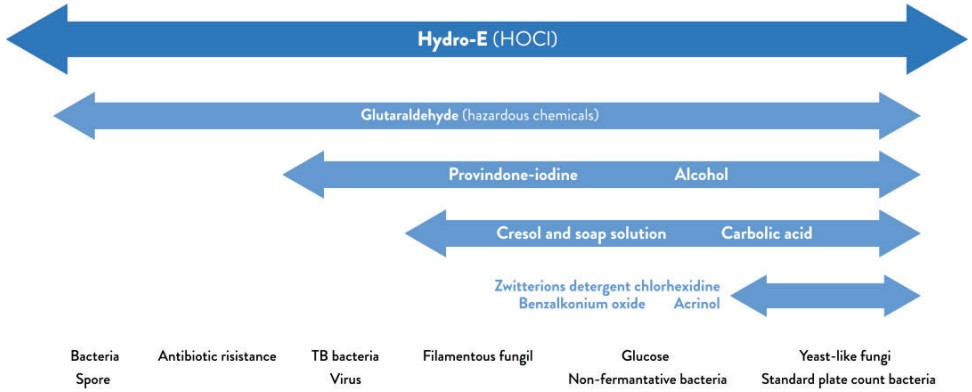
What is HOCl?

HOCl (Hypochlorous acid)

It is natural and highly-effective component of our internal immune system that works to fight against infection and control the healing process.

HOCl eliminates harmful micro-organisms without the use of alcohol, ammonia, phosphates or other harmful chemicals.

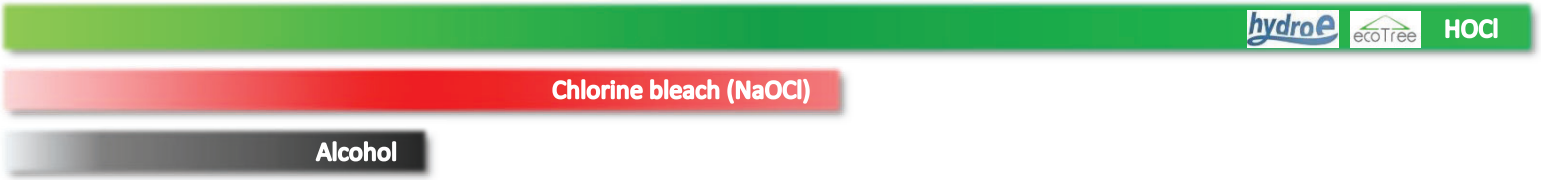




Sterilization Comparison

Sterilization Range

General bacteria	Food poisoning bacteria	Pathogen	Fungus	Virus	Mold fungi	Spore-forming bacteria
Colon bacterium Staphylococcus	Salmonella	Cholera	Fungus Yeast	Influenza Norovirus	Candida	Bacillus cereus Botulinum



HOCl is a highly effective when it comes to eliminating spore-forming bacteria

HOCl can eliminate a wider range of harmful viruses, germs and bacteria. (total 12 species)

Sterilization Power

Sample	Sterilization Power (%)		
	Escherichia coli	*Bacillus cereus*	*Listeria monocytogenes*
Hydro-E HOCl	99.99	99.99	99.99
NaOCl_100 ppm	Under 60	-	-
Ethanol 70%	99.99	99.99	99.99

Hydro-E HOCl has sterilizing power equal to or greater than NaOCl and ethanol for pathogenic food poisoning microorganisms such as *Escherichia coli, Bacillus cereus, Listeria monocytogenes.*

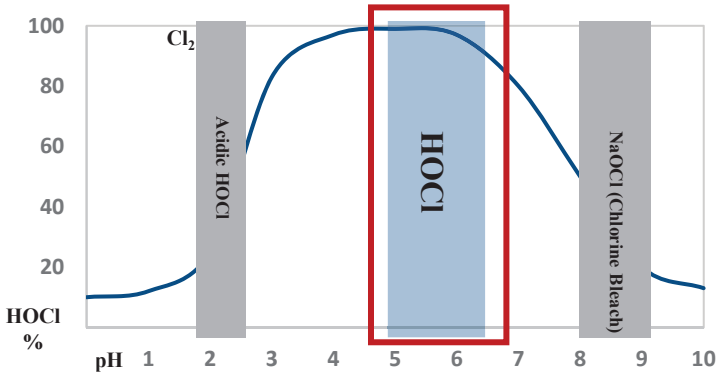
Safety Comparison

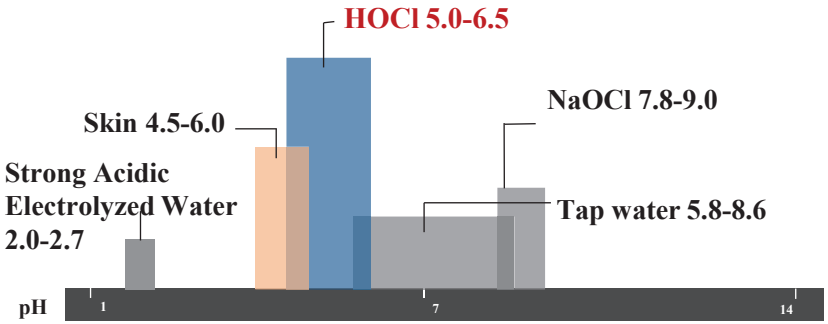
Toxicity & Risk Comparison

Substance	Cas No.	Flash Point (℃)	Acute Toxicity Oral	Ocular mucosa Irritation	Exposure Criteria (South Korea)
Hydro-E HOCl	7790-92-3	No data	Non-toxic or very weak	Non-irritation	No data
75% Ethanol	64-17-5	13.0	Highly-toxic	Slightly-irritation	*TWA 1,000 ppm
59% Ethanol	64-17-5	22.2	Highly-toxic	Slightly-irritation	TWA 1,000 ppm
NaOCl	7681-52-9	No data	Highly-toxic	Strongly-irritation	No data

Hydro-E HOCl is a non-flammable, non-toxic and non-irritative sterilizer.

pH Comparison





Applications

Public Institutions			Food Industry					R&D	
			Food Service		HACCP				
Industrial Safety	**Living Safety**	**Public Safety**	**Food Service**	**Kitchen**	**Sea Food**	**Agriculture**	**Food Processing**	**Animal**	**Laboratory**
Environmental Sanitization	Hand Sanitizer Disinfectant	Health Care Hospital Age Care	School Company Army	Kitchen Sterilizer	Jaymarine Inc.	Daehyang Corp.	Dongsung Food Inc.	Research Dissection Experiment	Replace Ethanol

HOCl has a broad application for cleaner and healthier lifestyles






Product Available

100ML

Portable Spray

POPULAR

500ML

Home or Office

5L

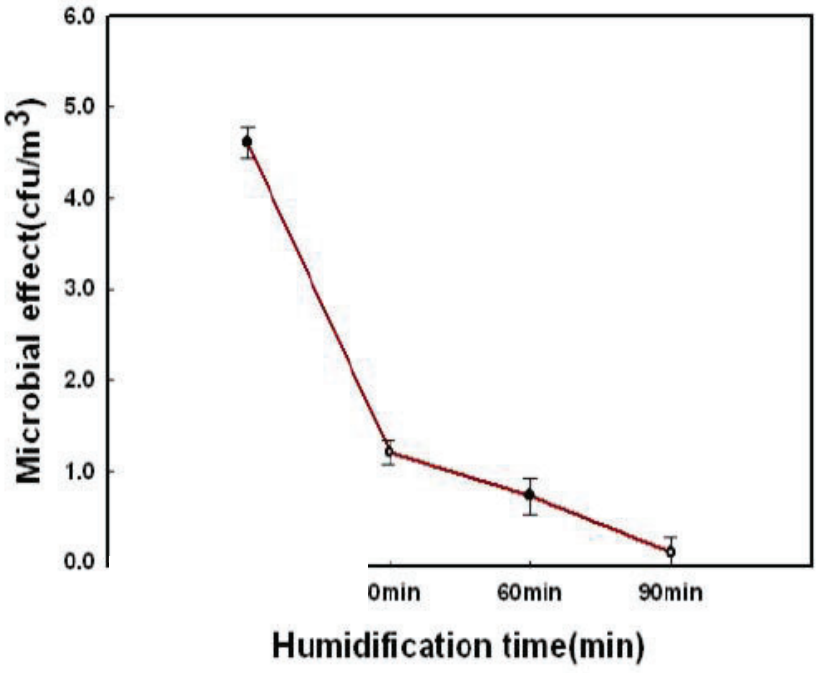
Refill or Food Preparation

Other packaging options available for

Wholesale | Bulk Purchase | Local Agent | On-site Generation

Product Performance in Air borne

99.9% Sterilization of Air floating bacteria

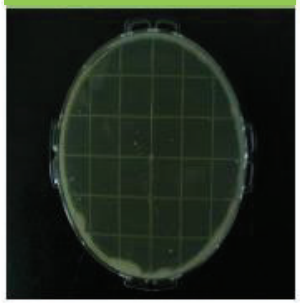


한국보건산업진흥원.

Before spraying

$4.61 \pm .0.17\ \log_{10}cfu/m^3$

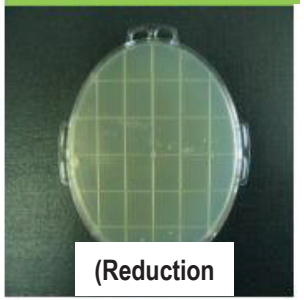
After 30 min



$1.20 \pm 0.14\ \log_{10}cfu/m^3$

Reduction 99.96%

After 60 min



(Reduction

$0.73 \pm 0.20\ \log_{10}cfu/m^3$

Reduction 99.99%

After 90 min

(Reduction

$0.10 \pm 0.17\ \log_{10}cfu/m^3$

Reduction 99.99%

residual test by indoor spray with HYDRO-E and other Chemicals

Test condition

1) space; 20 M^3 2) ventilation; none
3) spray quantity; 4 liter/h
4) gas measurement; Gastech Gas tester

Test result

concentration (ppm)	After 30 min (ppm)	After 1 hour (ppm)	Remark
500(Bleach)	0.10	0.10	–
200 (Bleach)	0.02	0.07	–
100 (High Acid HOCl)	0.01 below	0.01	–
50 (Hydro-E)	0.01 below	0.01 below	Normal condition

consideration

International environmental tolerance of chlorine gas is 1 ppm,
Normal condition rate is 1/100 of standard. Thus, safe for human.

* ACGIH (American Conference of Governmental Industrial)
TLV-TWA (Time loaded average) ; 1 ppm
TLV-STEL (Instant exposure limit) ; 3 ppm

International Certification

1) USA, United States Department of Agriculture(USDA)

The USDA's Food Safety and Inspection Service Directive 7120.1 " Safe and Suitable Ingredients Used in the Production of Meat and Poultry Products", has approved the use of **electrolytically generated hypochlorous acid** as a food additive for use on meat and poultry products. (USDA, 2008)

2) USA, Food and Drug Administration(FDA)

FCN 1811 for use of **hypochlorous acid, (CAS Reg. No. 7790-92-3)**, where free available chlorine(FAC) will not exceed 60ppm, as an antimicrobial agent in an aqueous solution in the production and preparation of whole or cut meat and poultry; processed and preformed meat and poultry; fish and seafood; fruits and vegetables; and shell eggs.

3) Japan, Ministry of Health, Labour and Welfare

The substances below are the designated additives appearing in Table 1, as mentioned in Article 12 of the Enforcement Regulations under the Food Sanitation Law.

172	Hypochlorous Acid Water

Listed as production methods of

Japanese Agricultural Standard for Organic Processed Foods
(Notification No. 1606 of the Ministry of Agriculture, Forestry and Fisheries of October 27, 2005)
(Established: Notification No.60 of January 20, 2000)

Japanese Agricultural Standard for Organic Livestock etc.
(Notification No. 1608 of the Ministry of Agriculture, Forestry and Fisheries of October 27, 2005)
(Established: Notification No. 1608 of October 27, 2005)

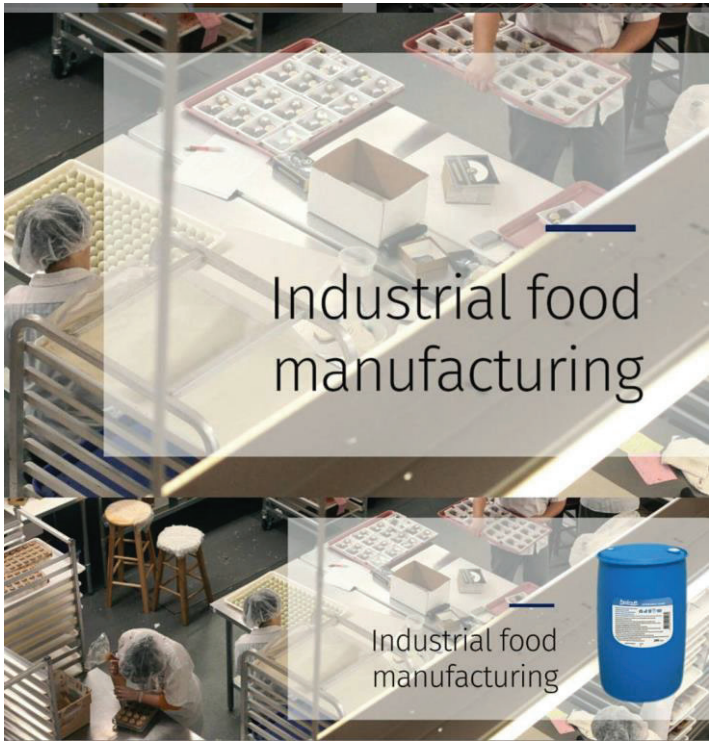
Japanese Agricultural Standard for Organic Plants
(Notification No. 1605 of the Ministry of Agriculture, Forestry and Fisheries of October 27, 2005)
(Established: Notification No. 59 of January 20, 2000)

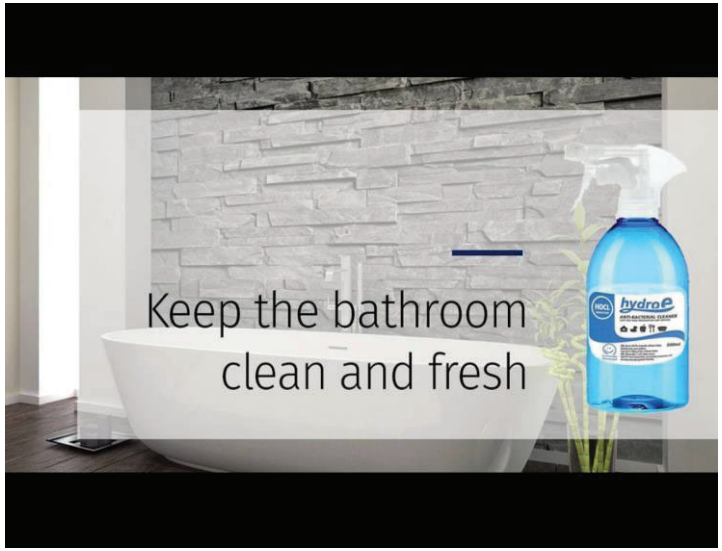
4) Australia Therapeutic Goods Administration

HOSPITAL GRADE Disinfectant ARTG: 335971 (7 May 2020)


Use Hydro-E, Prevent Spreading COVID-19.
Help stop spread now.
TGA Approved for reduce the transmission of COVID-19
KILLS COVID-19 HOSPITAL GRADE
PROUDLY AUSTRALIAN MADE
Australian Government
Department of Health
Therapeutic Goods Administration
For more information visit
hydro-e.com.au

Ads in Social media.





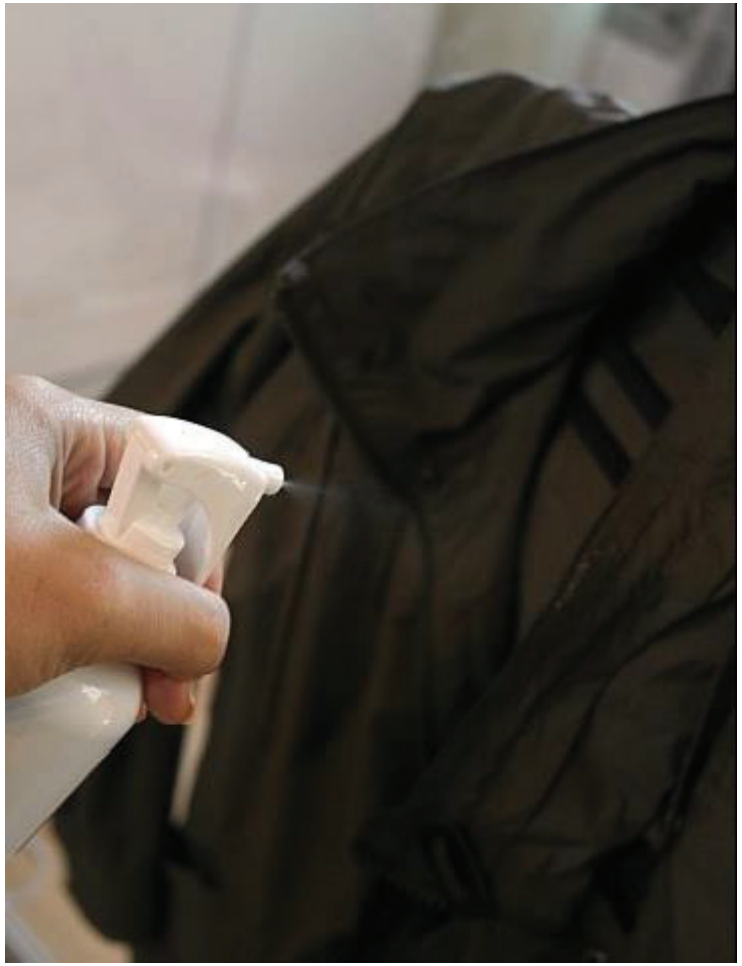
Deodorisation & Sterilisation

Actual Applications (w/bottle)

Deodorisation & Sterilisation

FLUGUN

Actual Applications



Actual Applications (w/bottle)

Deodorization & Sterilization

Actual Applications (w/machine)

Food processing manufacture





Food processing manufacture

- Total preparation is used with Hydro-E, Washing Veggies and washing bench to ps and kitchen equipment's
- After washing and sanitising with Hydro-E just let it dry to finalise the job.

Noddle manufacture

Egg's washing before packaging

Fruits agricultural

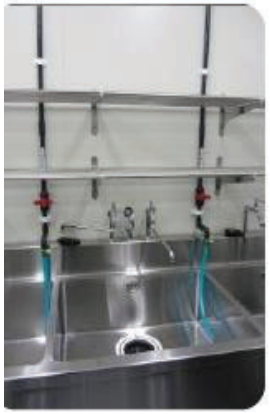
- It's economical, Sterilisation with non-toxic removes odours,
- no need to re-washi after because of residue free

Actual Applications



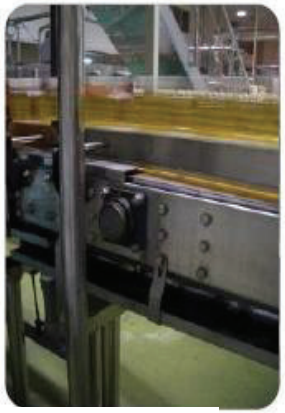

Glass & Plastic bottles sterilisation process

- Drinks and milk dairy farmer manufacturing can sterilise the bottles before injecting and prevent contamination. Save cost by shorten cleaning time.
- Tank sterilisation and any machinery cleaning.



Tape system

Conveyer belt line

Equipment cleaning

Floor and area cleaning

Sanitising Gate at your premises.

Contactless misting with:

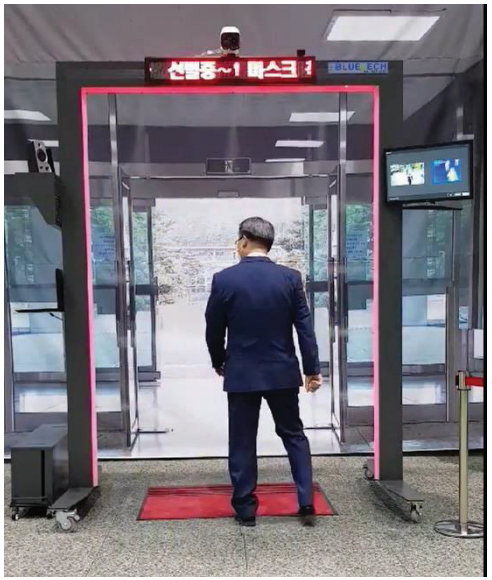
hydro e

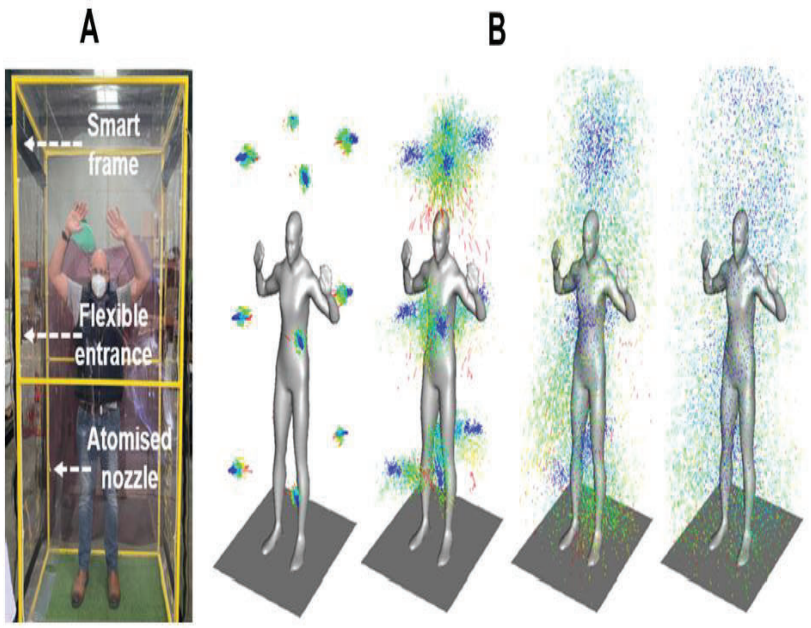
SAFER DISINFECTION

- Kills 99.99% of COVID-19 (on contact)
- Non-hazardous
- Non-toxic
- Non-flammable
- Safe for use on food
- Allergy-Free
- Alcohol-Free
- Child & Pet safe
- Gentle on skin
- pH neutral
- ECO Friendly
- HOCL Based
- Made in Australia

Walk slowly through the arch

www.hydro-e.com.au






YOUR HANDS ARE BEING PROTECTED BY:
hydroe
Kills 99.99% of COVID-19 in 20 sec
• Alcohol Free
• Non-toxic
• Child Friendly
• Non-hazardous
• Gentle on Skin
Rub hands throroughly
www.hydro-e.com.au